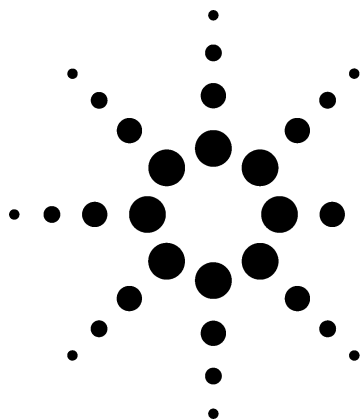
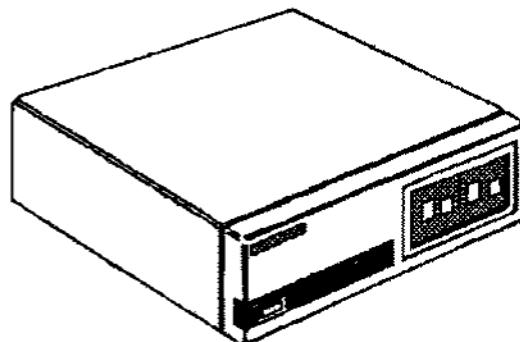


35900E Dual-Channel Interface with Modular Input/output



Specifications



Analog-to-Digital Conversion

General Specifications

Processor:	Motorola 68331 at 16.78 MHz
Number of channels:	Two independent
Type of A/D conversion:	Continuously integrating dual-slope, 100% area recovery
Memory	1 MB RAM (expandable to 8 MB)

Electrical Specifications

Input signal voltage range:	−18 mV to +1.0V
Maximum (no damage):	±10 V
Analog dynamic range:	> 140 dB (≤ 2 Hz) typical
Resolution:	24 bits
Common-mode voltage:	± 100 V maximum: relative to instrument chassis
DC input impedance:	Differential: 33 M Ω typical 8 M Ω minimum Common-mode: 500 M Ω minimum
Input noise:	40 nV rms, typical (with input shorted) 150 nV rms, maximum
Common-mode rejection:	140 dB minimum, dc to 100 Hz
Bandwidth:	15 Hz
Thermal drift:	0.8 μ V per °C, typical: 0°C to 35°C 1.7 μ V per °C, typical: 35°C to 55°C 3.5 μ V per °C, maximum: 0°C to 35°C 10 μ V per °C, maximum: 35°C to 55°C
Integral nonlinearity: (monotonicity guaranteed)	0.004% FS, typical 0.02% FS, maximum
Conversion factor:	10 nV per count ($\pm 3\%$)
Area resolution:	65 nV-second ($\pm 3\%$)
A/D sampling rate:	0.1 to 100 Hz
RFI immunity	Maximum baseline shift of 50 μ V with application of up to 3 V/m of RF field strength from 26 MHz to 1000 MHz



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Run Control Specifications

Remote Control

Remote start/stop/ready:	Two independent connectors, open collector TTL input/output
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Digital I/O

Number of lines:	16 lines per channel (8 bidirectional, 8 input only)
I/O signal levels:	TTL level inputs, open collector outputs
Input common mode range:	0–5V
Connectors:	Two 25-pin female D-subminiature connectors

Notes:

1. Differential ratings apply between the positive and negative input terminals.
2. The common mode ratings apply between both positive and negative input terminal and common GROUND (instrument ground or chassis).

Host Communications Specifications

Modular Input/Output (MIO) cards conform to MIO 5.0 specification.

Agilent ChemServer Interface-LAN MIO Card

Network type:	Ethernet
Protocol:	TCP/IP
Cable requirements:	Thin Ethernet cable (thin coax [10Base2]) Twisted-pair cable (unshielded/shielded [10BaseT])

Agilent GC and LC ChemStation Interface-GPIB RS-232-C MIO Card

Type of interface	GPIB
Communications protocol:	GPIB (Agilent interface bus); conforms to ANSI/IEEE-488 standard
Type of interface:	RS-232-C
Baud rates:	300, 600, 1200, 2400, 4800, 9600, 19200, 38400
Transmission:	Full duplex
Parity:	Even, odd, none
Start bits:	One
Stop bits:	One
Pacing:	XON/XOFF both directions, hardware handshake
Connectors:	One standard 25-pin male D-subminiature connector

Instrument Control Port Specifications

Type of interface:	RS-232-C
Baud rates:	300, 1200, 2400, 4800, 9600
Transmission:	Full duplex
Parity:	Even, odd, none
Start bits:	One
Stop bits:	One, two
Pacing:	XON/XOFF both directions, hardware handshake
Connectors:	Two standard 9-pin male D-subminiature connectors

Physical Specifications

Mechanical

Size:	325 mm (12.8 inches) wide 285 mm (11.2 inches) deep 104 mm (4.1 inches) high
Weight	4.1 kg (9 lbs)

Electrical

Line voltage range:	115 V, setting $\pm 10\%$; for 230 V, setting $\pm 10\%$
Line voltage fluctuations:	$\pm 10\%$ maximum
Line frequency range	50 Hz $\pm 5\%$ 60 Hz $\pm 5\%$
Line power consumption:	Nominal: 35 VA Maximum: 135 VA
Safety classification:	IEC safety class 1
Safety installation category:	IEC overvoltage category II

Environmental

Heat dissipation:	Nominal: 137 Btu/hr Maximum: 205 Btu/hr
Temperature ranges:	Operating: 5 °C to 40 °C
Humidity:	0% to 80% (noncondensing)
Altitude:	2,000 meters maximum
Safety pollution degree:	IEC pollution degree 2
Usage:	Indoor use

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Printed in the USA 6/2000
(23) 5962-6224E



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